

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.



Agriculture

Reserve

Science and
Education
Administration

Bibliographies
and Literature
of Agriculture
Number 17

A Bibliography of Psylla (Homoptera: Psyllidae) on Pear Trees

4286110
M.S.
Full



U.S. D. A.
NATL. AGRIC. LIBRARY
RECEIVED
SEP 16 '81
CURRENT SERIAL RECORDS

Additional copies of the bibliography can be obtained from:

Publications Center
Office of Governmental and Public Affairs
U.S. Department of Agriculture
Washington, D.C. 20250

A Bibliography of *Psylla* (Homoptera:Psyllidae) on Pear Trees¹

By G. J. Fields, R. W. Zwick, and H. R. Moffitt²

Introduction

The jumping plant lice or psyllids of the genus *Psylla* are probably the most important pest of pear fruit trees throughout the world. Three species, *Psylla pyricola* Foerster, *P. pyri* L., and *P. pyrisuga* Foerster, originated in Europe or Asia Minor. The fourth species, *P. hexastigma* Hovarth, known to infest pear trees, is found in eastern Siberia and Japan. This bibliography covers only the first three species. *P. pyri* (known as the pear sucker, pear leaf sucker, pear flea, or large pear psylla) and *P. pyrisuga* (called the common pear psylla or pear psylla) are the important European species. *P. pyricola* is the primary species in southern France and Asia Minor and the only species infesting pear in North America where it has the approved common name of pear psylla.³ Some reference may be made to *P. simulans* Foerster; however, determination in 1934 proved this species to be the winter form of *P. pyricola* (see Lal, 1934).

This bibliography consists primarily of work from North American authors, although authors from the following countries are included: Bulgaria, Denmark, France, Germany, Great Britain, Hungary, Israel, Italy, The Netherlands, Poland, Spain, Sweden, Switzerland, the U.S.S.R., and Yugoslavia among others. A two-letter abbreviation, in parentheses at the end of the citation, is used to indicate the language—other than English—in which the original article is published. The language abbreviation is used only when the language of publication has been indicated in the indexing sources or otherwise confirmed. The language abbreviations are as follows: BU-Bulgarian; CR-Croatian; DA-Danish; DU-Dutch; FR-French; GR-German; HU-Hungarian; IT-Italian; PO-Polish; RU-Russian; SP-Spanish; SW-Swedish; EN-English. If an article has an English summary, one of these abbreviations may be followed by the notation "EN Sum." If an article has been printed in two languages, both abbreviations are given. Foreign citations are difficult to interpret, and we trust the translations presented here are accurate.

A complete current and partial retrospective computer search, conducted through the USDA, SEA Current Awareness Literature Service, has been used to review the following indexing sources back through 1970: Biological Abstracts (BA), Bio-Research Index (BRI), Chemical Abstracts (CAO, CAE), National Agricultural Library Catalog (CAIN), and Commonwealth Agricultural Bureaux (CAB) back through 1976 only. Additional sources include the USDA Library Bibliography of Agriculture (1943-69), various State experiment station publications, journal article citations, and published proceedings of several State horticultural societies.

Bibliography

- Anderson, N. H. 1962. Anthocoridae of the Pacific Northwest with notes on distributions, life histories, and habits (Heteroptera). Canadian Entomologist 94:1325-1334.
- _____. 1962. Bionomics of six species of *Anthocoris* (Heteroptera:Anthocoridae) in England. Transactions of the Royal Entomological Society of London 114:67-95.
- _____. 1962. Growth and fecundity of *Anthocoris* spp. reared on various prey (Heteroptera:Anthocoridae). Entomologia Experimentalis et Applicata 5:40-52.
- _____. 1962. Studies on overwintering of *Anthocoris* (Hemiptera:Anthocoridae). Entomologist's Monthly Magazine 98 (May).
- _____, and L. A. Kelton, 1963. A new species of *Anthocoris* from Canada, with distribution records for three other species (Heteroptera:Anthocoridae). Canadian Entomologist 95:439-442.
- Angiboust, A. 1978. Comment concevoir la lutte contre les psylles du poirier. Arboriculture Fruitiere 291:31-33. (FR)
- Atger, P. 1977. Le psylle du poirier est-il un faux probleme? Defense des Vegetaux 31:310-316. (FR)
- _____. 1978. La lutte contre le psylle du poirier: aspects nouveaux. Arboriculture Fruitiere 288:33-36. (FR)
- Austin, M. D. 1972. A versatile new insecticide. Commercial Grower 3971:236, 251.
- Badaili, G. 1978. Due anni di prove di lotta contro la psilla del pero (*Psylla pyri* L.). Frutticoltura 40:31-34. (IT)
- Baeva, V. G. 1978. Review of the species of psyllids of the genus *Psylla* Geoffr. (Homoptera:Psyllidae) of the fauna of Tadzhikistan. Ivestiia Akademii nauk Tadzhikkoi SSR, Biologicheskikh nauk 3:31-44. (RU)
- Baggiolini, M., M. Baillod, P. J. Charmillot, and A. Schmid. 1977. La lutte antiparasitaire en arboriculture fruitiere. Ravaguers. Revue Suisse de Viticulture, d'Arboriculture et d'Horticulture 9:19-21. (FR)

¹Technical Paper No. 5452 of the Oregon Agricultural Experiment Station.

²Fields and Zwick are experimental biology technician and associate professor of entomology, respectively, Oregon State University, Mid-Columbia Experiment Station, Hood River, Oreg. 97031; Moffitt is a research entomologist, Yakima Agricultural Research Laboratory; U.S. Department of Agriculture (USDA), Science and Education Administration-Agricultural Research (SEA-AR), 3706 W. Nob Hill Blvd., Yakima, Wash. 98902.

³Blickenstaff, C. C. 1965. Common names of insects approved by the Entomological Society of America. Bulletin of the Entomological Society of America 11:287-320.

- _____, A. Schmid, W. Jucker, and M. Frischknecht. 1979. Applications pratiques des regulateurs de croissance des insectes (RCI), analogues de l'hormone juvenile, contre les psylles du poirier. *Mitteilungen der Schweizerischen Entomologischen Gesellschaft* 52:3-11. (FR:EN)
- Bailey, C. H., and L. F. Hough. 1974. Applied breeding and genetic engineering efforts at New Jersey with peaches, apricots, apples, and pears. *Proceedings of the International Horticulture Congress*. 1974 19:3-8.
- Bailey, J. B. 1965. Progress report on pear decline. *California Agriculture* 19:14-15.
- Bain, C., B. Labit, J. Mimaud, and M. Tanguy. 1976. Resultats de l' experimentation effectuee en 1975 par le service de la protection des vegetaux. II. Lutte contre les ravageurs et les maladies. *Phytoma* 28:7-13. (FR)
- Ball, J. C., and D. D. Jensen. 1966. Sexual dimorphism in nymphs of *Psylla pyricola*. *Annals of the Entomological Society of America* 59:1292-1294.
- Barnett, J. W., L. C. Thetford, and J. D. Van Geluwe. 1975. CGA-18809, A new insecticide-acaricide for deciduous fruits. *Proceedings of the North Central Branch of the Entomological Society of America* 30:90.
- Basky, Z. S. 1978. Adatok a fustosszarnyu kortelelevelgolha (*Psylla pyri* L.). [Biology of pear psylla (*Psylla pyri* L.).] *Novenyvedelem* 14:16-20. (HU:EN Sum)
- Bassino, J. P. 1974. Integrierter pflanzenschutz in Birnanlagen. *Obstbau Weinbau* 11:189. (FR:GR)
- _____, G. Fort, J. P. Gendrier, and J. N. Reboulet. 1974. La lutte integree en vergers de poiriers. Premiers resultats obtenus en France. Un ravageur difficile a maitriser: le Psylle commun. *Proceedings of the fifth symposium on integrated control in orchards*. Bolzano, 3-7 IX. (FR)
- Batiste, W. C. 1972. Integrated control of codling moth on pears in California: a practical consideration where moth activity is under surveillance. *Environmental Entomology* 1:213-218.
- _____. 1972. Integrated control of codling moth on pears in California, USA: effects of varying dosage of azinphosmethyl and oil with individual cover sprays. *Environmental Entomology* 1:503-508.
- _____, and A. Berlowitz. 1973. Codling moth and pear psylla: evaluation of insecticides for control on pears in California. *California Journal of Economic Entomology* 66:1139-1142.
- _____, A. Berlowitz, and W. H. Olson. 1970. Evaluation of insecticides for control of codling moth on pears in California and their usefulness in an integrated control program. *California Journal of Economic Entomology* 63:1457-1462.
- Batjer, L. P., and H. Schneider. 1960. Relation of pear decline to rootstocks and sieve-tube necrosis. *Proceedings of the American Society for Horticultural Science* 76:85-97.
- Beavers, J. B., and G. N. Oldfield. 1970. Portable platforms for watering leaves in acrylic cages containing small leaf-feeding arthropods. *Journal of Economic Entomology* 63:312-313.
- Benoit, F., editor. *Techniques modernes en arboriculture fruitiere*. Fruit Belge 43:215-246, 263-286. (FR)
- Berry, D. 1951. Pear psylla on the move. *Western Fruit Grower* 5:20.
- Bethell, R. S., L. A. Falcon, W. C. Batiste, G. W. Morehead, and E. P. Delfino. 1972. Sex pheromone traps determine need for codling moth control in apple and pear orchards. *California Journal of Economic Entomology* 26:10-12.
- Blattny, C., and V. Vana. 1974. Pear decline accompanied with mycoplasma-like organisms in Czechoslovakia. *Biologia Plantarum (Praha)* 16:474-475.
- Blodgett, E. C., M. D. Aichele, and J. L. Parsons. 1963. Evidence of a transmissible factor in pear decline. *Plant Disease Reporter* 47:89-93.
- Bode, W. M. 1977. San Jose scale *Aspidiotus perniciosus* and pear psylla *Psylla pyricola*. *Horticulture News*, New Jersey State Horticulture Society 58:26-28.
- _____. 1978. Performance of selected insecticides against pear psylla, *Psylla pyricola* (Homoptera:Psyllidae). *Journal of the New York Entomological Society* 86:279.
- Bognar, S., and J. Buza. 1976. A fustosszarnyu kortelelevel bolha (*Psylla pyri* L.). *Novenyvedelem* 12:145-149. (HU:EN Sum)
- Böhm, H. 1956. Mehr aufmerksam keit dem birnblattsauger. *Pflanzenarzt* 9:47-48. (GR)
- _____. 1965. Der birnblattsauger oder Birnblattfloh (*Psylla pyrisuga* Foerst.). *Vienna Bundesanstalt für Pflanzenschutz Flugblatt* 95, 1 p. (GR)
- _____. 1975. Der birnblattsauger oder Birnblattfloh (*Psylla pyrisuga* Foerst.). *Flugblatt Bundesanstalt Pflanzenschutz Landwirtsch Bakteriöl Versuchsanst* 95, 2 p. (GR)
- Bollow, H. von. 1960. Die Blattsauger (Psylla) der Apftreten Birmbaume, Auftreten, Aussenhen, Lebensweise, Voraussage und Bekämpfung. *Pflanzenschutz* 12:159-166.
- Bolokan, V. I. 1974. Rapid retrieval of information on the biology and control of insect pests. *Izvestiia Akademii nauk Moldovskoi SSR, Seviia Biologicheskaiia Khimicheskikh nauk* 6:43-49.
- Bonnemaison, L. 1964. Psylla of pear trees. *Congres Pomologique* 95:172-184. (FR)
- _____, and J. Missionnier. 1951. Biologie et methodes de lutte contre le psylle du poirier (*Psylla pyri* L.). *Transactions of the International Congress of Entomology* 94:585-588. (FR)
- _____. 1951. Observations preliminaires sur le psylle du poirier (*Psylla pyri* L.) et essais de traitements. *Comptes Rendus, Academie d'Agriculture de France* 37:57-59. (FR)

- _____. 1955. Recherches sur le determinisme des formes estivales ou hivernales et de la diapause chez le psylle du poirier (*Psylla pyri* L.). Annales de l'Institut National de la Recherche Agronomique Serie C 6:457-528. (FR)
- _____. 1955. Influence du photoperiodisme sur le determinisme des formes estivales ou hivernales et de la diapause chez *Psylla pyri* L. (Homopteres). Comptes Rendus, Academie des Sciences, Paris 240:1277-1279. (FR)
- _____, and J. Missionnier. 1956. Le psylla du poirier (*Psylla pyri* L.), morphologic et biologic. Methodes de lutte. Annales de l'Institut National de la Recherche Agronomique Serie C 2:263-331. (FR)
- _____. 1956. Le psylla du poirier (*Psylla pyri* L.). Annales des Epiphyties 11:263-331. (FR)
- Borden, A. D., and H. F. Madsen. 1963. Pear psylla spreads south. Western Fruit Grower 7:16-17.
- Brittain, W. H., and A. D. Pickett. 1933. Injurious insects of Nova Scotia. Nova Scotia Department of Agriculture Bulletin 12:96-102.
- Bronnimann, H. 1964. A simple method of obtaining accurate samples of very active insects on twigs and shoots. Commonwealth Institute of Biological Control Technical Bulletin 4:151-153.
- Brunner, J. F. 1973. Biology and behavior of *Anthocoris nemoralis* (Hemiptera:Anthocoridae) a predator of the pear psylla, *Psylla pyricola*. Proceedings of the Washington State Entomological Society 34:353-354.
- _____, and E. C. Burts. 1975. Searching behavior and growth rates of *Anthocoris nemoralis* (Hemiptera:Anthocoridae), a predator of the pear psylla, *Psylla pyricola*. Annals of the Entomological Society of America 68:311-315.
- Brunson, M. H., F. P. Dean, and J. C. Maitlen. 1962. Comparative effectiveness of different concentrations of spray in controlling codling moth and McDaniel mite on apple and pear psylla on pear. Proceedings of the Washington State Horticultural Association 58:61-64.
- Burts, E. C. 1958. Field studies on the control of pear psylla resistant to dieldrin, toxaphene and related compounds. Proceedings of the Washington State Horticultural Association 54:200-201.
- _____. 1959. Insect control problems on pears in central Washington. Proceedings of the Washington State Horticultural Association 55:161-164.
- _____. 1961. Controlling the pear psylla. Proceedings of the Washington State Horticultural Association 57:157.
- _____. 1963. Pear psylla in central Washington. Washington State Agricultural Experiment Station Circular 415, 11 p.
- _____. 1964. An evaluation of insecticides for the control of pear psylla. Washington State Agricultural Experiment Station Circular 438, 11 p.
- _____. 1965. Dormant season control of the pear psylla. Proceedings of the Washington State Horticultural Association 61:139.
- _____. 1968. An area control program for the pear psylla. Journal of Economic Entomology 61:261-263.
- _____. 1969. Insects that make life miserable for the pear grower. Proceedings of the Washington State Horticultural Association 65:138-140.
- _____. 1969. Insect answers: detection of pear psylla. Washington State University Extension Mimeo 3069, 2 p.
- _____. 1970. Pear psylla in central Washington. Washington State Agricultural Experiment Station Circular 516.
- _____. 1970. What we learned about pear insect control in 1970 that may help us in 1971. Proceedings of the Washington State Horticultural Association 66:72-75.
- _____. 1971. *Anthocoris nemoralis*—A new predator for control of pear psylla. Proceedings of the Washington State Horticultural Association 67:110-112.
- _____. 1976. How are we going to control pear psylla in 1977? Proceedings of the Washington State Horticultural Association 72:39-40.
- _____. 1976. Aerial application of dormant season sprays for control of *Psylla pyricola* overwintered adults. Journal of Economic Entomology 69:630-632.
- _____. 1977. Synthetic pyrethroids—new chemical for control of pear psylla. Proceedings of the Washington State Horticultural Association 73:168.
- _____. 1979. Pear, pear psylla dormant season control, 1978: airblast sprays. Insecticide and Acaricide Tests 4:30.
- _____. 1979. Pear, pear psylla dormant season control, 1978: helicopter sprays. Insecticide and Acaricide Tests 4:30.
- _____, and W. R. Fisher. 1967. Mating behavior, egg production, and egg fertility in the pear psylla. Journal of Economic Entomology 60:1297-1300.
- _____, and S. G. Kelly. 1966. The effect of pear psylla, *Psylla pyricola*, control on growth and survival of Bartlett pear trees on two rootstocks. Journal of Economic Entomology 59:192-194.
- Caesar, L. 1948. The history of orchard spraying in Ontario. Ontario Department of Agriculture Bulletin 462.
- Carl, K. P. 1972. Current projects on the biological control of agricultural and orchard pests introduced from Europe. Anzeiger fur Schadlinskunde und Pflanzenschutz 45:177-182.
- Carlson, F. W., and E. J. Newcomer. 1948. Habits and control of the pear psylla in Washington. Proceedings of the Washington State Horticultural Association 44:139-141.
- _____. 1949. Control of pear psylla in the Pacific Northwest. Journal of Economic Entomology 42:338-342.

- Chang, J. F., and B. J. R. Philogene. 1975. A bibliography of the pear psylla, *Psylla pyricola* (Homoptera: Psyllidae). Bulletin of the Entomological Society of America 21:247-249.
- _____. 1976. The development and behavior of the pear psylla, *Psylla pyricola*, (Homoptera:Psyllidae) on different pear rootstocks and cultivars. Phytoprotection 57:137-149. (EN:FR)
- _____, and B. J. R. Philogene. 1978. Response of *Psylla pyricola* (Homoptera:Psyllidae) to, and characterization of polar and lipid fractions of *Pyrus* sp. leaves. Phytoprotection 59:28-39. (EN:FR)
- Chang, K. P., and A. J. Musgrave. 1969. Histochemistry and ultrastructure of the mycetome and its symbiotes in the pear psylla, *Psylla pyricola*. Tissue Cell 1:597-606.
- Chkhaidze, T. A. 1972. Studying some biological problems of *Trechnites psyllae*, new-record, a parasite of *Psylla pyri*. Trudy Instituta Zashchity Rastenii, Akademiya nauk Gruzinskoi SSR 23:70-72.
- _____, and E. N. Khlopunov. 1971. Study of *Trechnites psyllae* parasite of *Psylla pyri*. Soobshcheniia Akademii nauk Gruzinskoi SSR 62:709-711.
- Christoph, W. 1979. Der Birnblattsauger (*Psylla piri*) krankheiten und schadlinge. Obstbau Weinbau 16:78. (GR)
- _____, and H. Kreidl. 1975. Birnblattsauger—Bekämpfung 1975. Obstbau Weinbau 12:340. (GR)
- Ciampolini, M. 1962. Action of white oils on the eggs of *Psylla pyri* L. Progresso Agricolo 8:1106-1112. (IT)
- Coelin, R., H. Hoffmann, and I. Hammann 1975. New insecticidal OP esters in the series of pyrazolopyrimidines. VIII International Plant Protection Congress, Moscow 1975 Reports and Information, Section 1 on III Chemical Control, part 1, U.S.S.R., 1975, 376 p.
- Collins, M. D., P. B. Lombard, and J. W. Wolfe. 1978. Effects of evaporative cooling for bloom delay on 'Bartlett' and 'Bosc' pear tree performance. Journal of the American Society for Horticultural Science 103:185-187.
- Cook, P. O. 1963. Mating behavior of *Psylla pyricola* Foerster (Homoptera:Psyllidae). Pan Pacific Entomologist 39:175.
- Croft, B. A., and S. C. Hoyt. 1978. Considerations for the use of pyrethroid insecticides for deciduous fruit pest control in the U.S.A. Environmental Entomology 7:627-30.
- Davis, L. G. 1944. Pear psylla control in 1944. Proceedings of the Washington State Horticultural Association 40:149-53.
- _____. 1945. Pear psylla control program in the Pacific Northwest. California Department of Agriculture, Special Pamphlet 209, p. 44-46.
- _____. 1947. Pear psylla control in 1947. Proceedings of the Washington State Horticultural Association 43:39-43.
- Drost, W. J., and P. Smedling. 1949. The apple (*Psylla mali*) and pear sucker (*Psylla pyri*). Fruitiere 39:66-67. (DU)
- Dustan, G. G. 1947. The influence of air currents on the insecticidal actions of DDT, benzene, hexachloride, Hercules Toxicant 3956, and Velsicol 1068. Canadian Entomologist 79:45-50.
- Ellertson, F. E. 1962. Insect control—mites and pear psylla, *Psylla pyricola* Foerster. Proceedings of the Oregon Horticultural Society 1962:53-55.
- Esipenko, P. A. 1962. Pear psylla (*Psylla pyricola*). Zeitschrift fur Pflanzendrankheiten und Pflanzenschutz 10:53-54 (RU)
- Fields, G. J., and B. P. Beirne. 1973. Ecology of Anthocorid (Hemiptera:Anthocoridae) predators of the pear psylla (Homoptera:Psyllidae) in the Okanagan Valley, British Columbia, Canada. Journal of the Entomological Society of British Columbia 70:18-19.
- _____, and R. W. Zwick. 1975. Elimination of ovarian diapause in pear psylla, *Psylla pyricola* (Homoptera:Psyllidae), in the laboratory. Annals of the Entomological Society of America 68:1037-1038.
- Forbes, A. R. 1972. Innervation of the stylets of the pear psylla *Psylla pyricola* (Homoptera:Psyllidae) and the greenhouse whitefly *Trialeurodes vaporariorum* (Homoptera:Aleyrodidae). Journal of the Entomological Society of British Columbia 69:27-30.
- Frankenjuzen, A. van. 1975. Le psylle du poirier aux pays bas. Fruit Belge 43:237-241. (FR)
- _____, and J. M. Freriks. 1972. Perebladviooien, *Psylla* het jaar rond. Levende Natuur 75:93-96. (DU)
- _____, and E. Meinsma. 1978. De werking van diflubenzuron (Dimilin) op de gewone perebladvlo (*Psyllia piri*). Gewasbescherming 9:53-59. (DU)
- Frankenjuyzen, A van., and E. Meinsma. 1978. Waarnemingen over de ontwikkeling van een perebladvlo generatie in het voorjaar van 1976. Gewasbescherming 9:143-149. (DU)
- Franz, J. M. 1978. Neues vom integrierten und biologischen Pflanzenschutz. Erwerbsobsbau 20:144-147. (GR)
- Frischknecht, M., W. Jucker, M. Baggiolini, and A. Schmid. 1978. Mode of action and practical possibilities of an insect growth regulator with juvenile hormone activity in pear psyllid control. Zeitschrift fur Pflanzendrankheiten und Pflanzerschutz 85:334-340.
- Gar, K. A., Y. D. Radchenko, N. I. Gushchina, and L. A. Gulidova. 1973. Effectiveness of 5-trichloral against orchard pests in the early spring period. Khimicheskie Serdstva Zachehity Rastenii 3:31-38. (RU)
- Garman, P. 1925. The pear psylla in Connecticut. Connecticut State Experiment Station Bulletin 275:292-295.
- _____, and J. F. Townsend. 1941. Control of pear psylla in Connecticut. Connecticut State Agricultural Experiment Station, New Haven, Circular 143, 12 p.

- Gegechkori, A. M. 1977. The psyllids (Homoptera: Psyllidae) of Talysh, U.S.S.R. Soobshcheniia Akademii nauk Gruzinskoi SSR 86:197-200.
- Geoffrion, R. 1963. The common psylla of pears. Phytoma 15:25-26. (FR)
- Georgala, M. B. 1957. A contribution to the biology of the pear sucker, *Psylla pyricola* Foerster. Annual Report of the East Malling Research Station 1956:135-141.
- Gentner, L. G. 1954. How Medford deals with pear psylla. Western Fruit Grower 8:15-17.
- Glass, E. H. 1968. Pear psylla control studies. New York State Agricultural Experiment Station Research Circular 16, 10 p.
- Goble, H. W. 1963. Insects of the apple and pear. Ontario Department of Agriculture Bulletin 512.
- Gonzales, C. Q., W. H. Griggs, D. D. Jensen, and S. M. Gotan. 1963. Orchard tests substantiate role of pear psylla in pear decline. California Agriculture 17:4-6.
- Grbic, V. 1974. Rezultati ispitivanja ovicidnog i larvicidnog dejstva hekih insekticida kod suzbijanja kruskine buve (*Psylla pyri* L.). Agrohemija 7:317-321. (CR:EN Sum)
- _____. 1974. Neke stetne vrste iz familije Psyllidae na plantazama kruska in Fojvodini. Zastita Bilja 25:121-131. (CR:EN Sum)
- Great Britain Ministry of Agriculture, Fish, and Food. 1976. Apple and pear suckers. Great Britain Ministry of Agriculture, Fish, and Food, Advisory Leaflet 96 revised, 7 p.
- Griggs, W. H., D. D. Jensen, and B. T. Iwakiri. 1968. Development of young pear trees with different rootstocks in relation to psylla infestation, pear decline, and leaf curl. Hilgardia 39:153-204.
- _____, and J. A. Beutel. 1967. Effects of different rootstocks, and degree of psylla infestation on leaf curl in young pear trees. California Agriculture 21:16-20.
- _____, K. Ruygo, R. S. Bethell, and K. Uriu. 1962. Pear decline research. California Agriculture 16:9-10.
- Groit, M. 1953. El psilido del peral, una plaga dificil pero posible de combatir. Mundo Agricola 5:66.
- Grosscurt, A. C. 1978. Diflubenzuron: Some aspects of its ovicidal and larvicidal mode of action and an evaluation of its practical possibilities. Pesticide Science 9:373-386.
- Hall, F. H. 1914. The pear psylla and its control. New York State Agricultural Experiment Station Bulletin 387, 10 p.
- Hamilton, D. W. 1947. New insecticides for the control of pear psylla. Journal of Economic Entomology 40:234-236.
- _____. 1948. Pear psylla (*Psylla pyricola*) control with dormant sprays. Journal of Economic Entomology 41:443-445.
- _____. 1948. Pear psylla (*Psylla pyricola*) control in the Hudson River Valley in 1947. Proceedings of the New York State Horticultural Society 93:171-179.
- Hamilton, D. W. 1948. Summer control of pear psylla during 1947. Journal of Economic Entomology 41:224-248.
- Hammer, O. H. 1949. The triethionalamine salt of dinitro-o-sec-butylphenol to control certain pests on fruit trees. Proceedings of the New York State Horticultural Society 42:380-383.
- Hardtl, H. 1967. Über den Birnblattsauger—die Honiglaus. Obstbau Weinbau 5:127-129. (GR)
- _____. 1967. Biological observations of the jumping pear louse [*Psylla piri* (sic)] and its culture in field cages. Anzeiger für Schadlingskunde 40:42-46. (GR:EN Sum)
- Harries, F. H., and E. C. Burts. 1959. Laboratory studies of pear psyllas resistance to dieldrin and some related compounds. Journal of Economic Entomology 52:530-531.
- _____. 1965. Insecticide resistance in the pear psylla. Journal of Economic Entomology 58:712-713.
- Harris, M. 1971. Sampling pear foliage for nymphs of the pear psylla using the berlese tullgren funnel. Journal of Economic Entomology 64:1317-1318.
- Harris, M. K. 1972. Host resistance to the pear psylla in New York State. Ph.D. Thesis, Cornell University. 185 p.
- _____. 1973. Host resistance to the pear psylla in a *Pyrus communis* × *Pyrus ussuriensis* hybrid. Environmental Entomology 2:883-887.
- _____. 1975. Greenhouse testing of pears with *Pyrus ussuriensis* lineage for resistance to *Psylla pyricola*. Journal of Economic Entomology 68:641-644.
- _____, and R. C. Lamb. 1972. Pear breeding for resistance to the pear psylla. HortScience 7:23.
- _____. 1973. Resistance to the pear psylla in pears with *Pyrus ussuriensis* lineage. Journal of the American Society for Horticultural Science 98:378-381.
- Hart. 1950. Der birnsauger (*Psylla pyrisuga*). Garten-Zeitschrift für Gärtner und Gartenfreunde, Siedler und Kleingärtner. Illustrierte Flora (Vienna) 73:69-70.
- Hartman, H. 1961. Pear decline, a progress report. Proceedings of the Oregon Horticultural Society 53:41-52.
- Hartzell, F. Z. 1924. Spraying and dusting for the control of pear psylla. New York State Agricultural Experiment Station Research Circular 72, 14 p.
- _____. 1925. Susceptibility to dust and spray mixtures of the pear psylla (*Psylla pyricola* Foerster). New York State Agricultural Experiment Station Bulletin 527, 139 p.
- _____. 1931. Investigations aimed at reducing the cost of pear psylla control. Journal of Economic Entomology 24:71-77.
- _____. 1932. Dormant oil sprays for pear psylla. New York State Agricultural Experiment Station Research Circular 129, 8 p.

- _____, and F. L. Gambrell. 1931. Relation of environment to pear psylla infestation. *Journal of Economic Entomology* 24:66-71.
- _____, and P. J. Parrott. 1932. Tar distillate emulsions for the control of the rosy aphid and other fruit insects. New York State Agricultural Experiment Station Research Circular 636, 29 p.
- Haseman, L. 1913. Some orchard insects of Missouri. Missouri State Board of Horticulture Bulletin 51. 31 p.
- Hibino, H., and H. Schneider. 1970. Mycoplasma-like bodies in sieve tubes of pear trees affected with pear decline. *Phytopathology* 60:449-501.
- _____, G. H. Kaloostian, and H. Schneider. 1971. Mycoplasma-like bodies in the pear psylla vector of pear decline. *Virology* 43:34-40.
- Hodgkiss, H. E. 1913. Fall spraying for pear psylla. *Journal of Economic Entomology* 6:243-244.
- _____. 1914. Susceptibility to spraying mixtures of hibernating pear psylla adults and their eggs. New York State Agricultural Experiment Station Bulletin 387:389-418.
- Howell, J. F., R. E. Fye, and T. J. Seigny. 1977. Pear, pear psylla control. *Insecticide and Acaricide Tests* 3:45.
- Hoyt, S. C., and E. C. Burts. 1974. Integrated control of fruit pest. *Annual Review of Entomology* 19:231-252.
- _____, P. H. Westigard, and E. C. Burts. 1978. Effects of two synthetic pyrethroids on the codling moth, pear psylla, and various mite species in Northwest apple and pear orchards. *Journal of Economic Entomology* 71:431-434.
- Jensen, D. D. 1957. Parasites of the psyllidae. *Hilgardia* 27:71-99.
- _____, and W. R. Erwin. 1963. The relation of pear psylla to pear decline, greenhouse tests. *California Agriculture* 17:2-3.
- _____, W. H. Griggs, C. Q. Gonzales, and H. Schneider. 1964. Pear psylla proven carrier of pear decline virus. *California Agriculture* 18:2-3.
- _____. 1964. Pear decline virus transmission by pear psylla. *Phytopathology* 54:1346-1351.
- Johnson, S. D., L. K. Pickett, and A. J. Howitt. 1974. A metering system for ultra low volume pesticide application. *Journal of Agricultural Engineering Research* 19:439-441.
- Jones, A. L., and E. H. Smith. 1964. A new look at the pear psylla. *Farm Research* 30:4-5.
- Kaloostian, G. H. 1961. Evaluation of adhesives for sticky board traps. *Journal of Economic Entomology* 54:1009-1011.
- _____. 1968. Chemosterilization of male pear psylla with Tapa. *Journal of Economic Entomology* 61:573-574.
- _____. 1968. A leaf drop symptom associated with own-rooted magness pear trees inoculated with pear decline virus by pear psylla. *Plant Disease Reporter* 53:363-365.
- _____. 1970. Transitory host of the pear psylla. *Journal of Economic Entomology* 63:1039-1041.
- _____. 1970. Longevity, fecundity, and fertility of adult pear psylla chemosterilized with Tapa. *Journal of Economic Entomology* 63:1146-1148.
- _____, H. Hibino, and H. Schneider. 1971. Mycoplasma-like bodies in periwinkle: their cytology and transmission by pear psylla from pear trees affected with pear decline. *Phytopathology* 61:1177-1179.
- _____, and L. S. Jones. 1968. Pear leaf curl transmitted by pear psylla. *Plant Disease Reporter* 52:924-925.
- _____, G. N. Oldfield, and L. S. Jones. 1968. Effect of pear decline virus and toxin of pear psylla, *Psylla pyricola* Foerster, on pear trees. *Phytopathology* 58:1236-1238.
- _____, and W. W. Wolf. 1968. Attraction of pear psylla to blacklight. *Journal of Economic Entomology* 61:145-147.
- _____, and M. S. Yeomans. 1944. A sticky trap board used in scouting for pear psylla. U.S. Department of Agriculture, Bureau of Entomology, Plant Quarantine ET-200. 9 p.
- Keenan, W. N. 1944. Pear psylla control in British Columbia as an international project. *Annual Report of the Ontario Entomological Society (1943)* 74:45-46.
- Kharizanov, A. 1966. Biological and ecological research on the common pear plant louse, *Psylla pyri* L. *Gradinarska Lozarska Nauk* 3:325-340. (BU:FR Sum)
- Kitching, R. L. 1971. The psyllidae of British Columbia with a key to species. *Journal of the Entomological Society of British Columbia* 68:36-43.
- Kipiani, A. A., and T. A. Chkhaidze. 1973. Integrated control of *Psylla pyri*. *Trudy Navchno-Issledovatel'skogo Instituta Zachchity Rastenii* 25:70-73.
- Klyver, F. D. 1931. Notes on the chermidae (Hemiptera:Homoptera). Part II. *Canadian Entomologist* 63:111-115.
- Knapen, H., and G. van Wetswinkel. 1977. Perbladvlo (*Psylla pyri*) biologie en bestrijding. *Mededelingen van de Faculteit Landbouwwetenschappen Rijksuniversiteit Gent* 42:1315-1322.
- Krawczyk, A., and P. Migula. 1979. Metabolism in Psyllodea Homoptera insects. 14th Congress of the Polish Physiological Society, Lodz, Poland, September 1978. *Acta Physiol Pol* 30:114.
- Kreidl, H. 1977. Spritzversuch zur Birnblattsauger-Bekämpfung. *Obstbau Weinbau* 13:5.
- Kremer, W. 1971. Change of species dominance among pests of intensively protected pome fruit crops in Italy. *Pflanzenschutz-Nachrichten* 24:232-238.

- Lal, K. B. 1934. Insect parasites of Psyllidae. *Parasitology* 26:324-334.
- _____. 1934. The biology of Scottish Psyllidae. *Transactions of the Royal Entomological Society of London* 82:374-376.
- Larsen, D. 1962. Nature lends hand in pear psylla research. *Western Fruit Growers* 16:14-15.
- Lazarev, M. A. 1974. Trophic selectivity of apple and pear psyllas. *Byulleten Gosudarstvennogo Nikitskogo Botanicheskogo Sada* 2:44-47. (RU:EN)
- _____. 1975. New data on the biology of the large pear psyllid *Psylla pyrisuga* Foerster (Homoptera:Psyllidae) in the Crimea. *Entomologicheskoe Obozrenie* 54:758-759. (RU)
- _____. 1979. New data on the biology of *Psylla pyri* L. (Homoptera:Psyllidae) in the Crimea. *Entomologicheskoe Obozrenie* 58:53-56. (RU)
- Leeper, J., and J. Tette. 1978. Pear psylla. New York State Agricultural Experiment Station Insect Identification Sheet No. 1.
- Lesne, P. 1914. Les insectes nuisibles aux arbres fruitiers. *Journal d'Agriculture Pratique*, Paris 7:534-535.
- Lhoste, J. 1975. Resultats d'Essais en plein champ avec des pyrethrinoides utilises pour combattre les ravageurs des vegetaux. *Comptes Rendus, Academie d'Agriculture de France* 61:695-701. (FR)
- Lindner, R. C., and L. P. Batjer. 1962. Living with pear decline. *Proceedings of the Washington State Horticultural Association* 58:115-118.
- _____, E. C. Burts, and N. R. Benson. 1961. The relation of pear psylla to pear decline. *Proceedings of the Washington State Horticultural Association* 57:156.
- _____. 1962. A decline condition in pears induced by pear psylla. *Plant Disease Reporter* 46:59-60.
- Linnik, L. I. 1973. Characteristics of oviposition arrangement of *Psylla pyri* on a tree. *Vestnik Zoologii* 7:88-89.
- _____, and V. T. Linnik. 1972. Effectiveness of some preparations against the common pear psylla. *Khimiia v Sel'skom Khoziaistve* 10:117-118. (RU)
- Lockwood, S. 1955. The pear psylla (*Psylla pyricola*). *Blue Anchor* 32:23, 39-40.
- _____. 1957. Pear psyllid (*Psylla pyricola*) found in Sacramento Valley. *Blue Anchor* 34:25.
- Loginova, M. M. 1978. Classification of psyllids of the genus *Psylla* (Homoptera:Psyllidae). *Entomologicheskoe Obozrenie* 57:808-824.
- Lombard, P. B., M. D. Collins, and J. W. Wolfe. 1977. The effect of evaporative cooling for bloom delay on Bartlett and Bosc pear tree performance. A discussion paper. *HortScience* 12:410.
- McMullen, R. D. 1964. Biological control of pear psylla. *Proceedings of the Washington State Horticultural Association* 60:79-82.
- _____. 1966. Integrated control of pear psylla. *Canadian Agriculture* 11:12-13.
- _____. 1966. New records of chalcidoid parasites and hyperparasites of *Psylla pyricola* Foerster in British Columbia. *Canadian Entomologist* 98:236-239.
- _____. 1971. *Psylla pyricola* Foerster (Hemiptera:Psyllidae). In *Biological control programmes in Canada, 1959-1968. Part 1: agricultural insects*. Commonwealth Institute of Biological Control Technical Communication 4:33-38.
- _____, and C. Jong. 1967. The influence of three insecticides on predation of the pear psylla, *Psylla pyricola*. *Canadian Entomologist* 99:1292-1297.
- _____. 1967. New records and discussion of predators of the pear psylla, *Psylla pyricola* Foerster, in British Columbia. *Journal of the Entomological Society of British Columbia* 64:35-40.
- _____. 1970. The biology and influence of pesticides on *Campylomma verbasci* (Heteroptera:Miridae). *Canadian Entomologist* 102:1390-1394.
- _____. 1971. Dithiocarbamate fungicides for control of pear psylla. *Journal of Economic Entomology* 64:1266-1270.
- McMullen, R. D., and C. Jong. 1972. Influence of temperature and host vigor on fecundity of the pear psylla (Homoptera:Psyllidae). *Canadian Entomologist* 104:1209-1212.
- _____. 1976. Factors affecting induction and termination of diapause in pear psylla (Homoptera:Psyllidae). *Canadian Entomologist* 108:1001-1005.
- _____. 1977. Effect of temperature on developmental rate and fecundity of the pear psylla, *Psylla pyricola* (Homoptera:Psyllidae). *Canadian Entomologist* 109:165-169.
- MacNeil, J. D., and M. Hikichi. 1976. Degradation of endosulfan and ethion on pears and pear and grape foliage. *Journal of Agriculture, Food Chemistry* 24:608-611.
- McNelly, L. B. 1965. Causes and corrections for pear decline damage. *Western Fruit Grower* 19:13-14.
- Madsen, H. F. 1961. Notes on *Anthocoris melanocerus* Reuter (Hemiptera:Anthocoridae) as a predator of the pear psylla in British Columbia. *Canadian Entomologist* 93:660-662.
- _____, and M. M. Barnes. 1959. Pests of pear in California. *California Agricultural Experiment Station Circular* 478, 40 p.
- _____, and J. Marshall. 1961. Dormant sprays for the control of pear psylla, *Psylla pyricola*, in British Columbia. *Journal of Economic Entomology* 54:1000-1003.
- _____, and R. D. McMullen. 1964. Research on pear psylla control. *British Columbia Fruit Growers Association Quarterly Report* 9:7-10.
- _____, and C. V. G. Morgan. 1970. Pome fruit pests and their control. *Annual Review of Entomology* 15:295-320.

- _____, and R. Sisson, and R. Bethell. 1962. The pear psylla in California. California Agricultural Experiment Station Circular 510, 11 p.
- _____, and P. H. Westigard. 1963. Control of pear psylla with oils and oil-pyrethrins. California Agriculture 17:9-10.
- _____, P. H. Westigard, and R. L. Sisson. 1963. Observations on the natural control of the pear psylla, *Psylla pyricola* Foerster, in California. Canadian Entomologist 95:837-844.
- _____, and K. Williams. 1967. Control of the pear psylla with oils and oil-insecticide combinations. Journal of Economic Entomology 60:121-124.
- _____. 1967. The performance, phytotoxicity and persistence of three petroleum oils for control of the pear psylla. Journal of the Entomological Society of British Columbia 64:3-8.
- _____. 1968. The effect of petroleum oils on Bartlett pears and on pear psylla, *Psylla pyricola*. Canadian Entomologist 100:290-295.
- _____. 1969. The effect of petroleum oils on Anjou pears and on pear psylla, *Psylla pyricola*. Canadian Entomologist 101:584-588.
- _____, and T. T. Y. Wong. 1964. Effects of predators on control of pear psylla. California Agriculture 18:2-3.
- Manis, H. C. 1954. Pear psylla. Transactions of the Idaho State Horticulture Society, 1954.
- Mantinger, H., J. Vigland, and S. Demattio. 1977. Spritzversuch gegen Birnblattsauger. Obstbau Weinbau 14:363 (GR)
- Marlatt, C. L. 1895. The pear-tree psylla. U. S. Department of Agriculture Circular 7, 8 p.
- Marshall, J. 1959. An unusual manifestation in the natural control of the pear psylla, *Psylla pyricola* Foerster. Proceedings of the Entomological Society of British Columbia 56:69-71.
- Matvievskii, A. S. 1976. Psyllids on fruit trees. Zashchita Rastenii 12:56. (RU)
- _____, and H. F. Olds. 1947. The pear psylla in British Columbia. Proceedings of the Entomological Society of British Columbia 43:1-3.
- Mellenthin, W., E. Burts, R. Zwick, R. Rackham, R. Covey, and C. Peters. 1978. Are pear growers achieving control with current programs? Proceedings of the Washington State Horticultural Association 74:175-183.
- Michigan Agricultural Experiment Station. 1972. Eighty-fourth annual report, Michigan Agricultural Experiment Station Report 153, 1970-71, 84 p.
- Milaire, H. G. 1974. Aperçu économique de la protection phytosanitaire des vergers français soumis à la lutte intégrée. Bulletin Organisation Européenne et Méditerranéenne Pour la Protection des Plantes 4:369-379. (FR)
- Milliman, L. H. 1964. Pear psylla poses major control problem. Agricultural Chemistry 19:109, 111-112, 167.
- Missonnier, J. 1952. Le psylle du poirier, *Psylla pyri* L. Phytoma 5:8-11.
- _____. 1956. Biologie des psylles du poirier methods de lutte. Congres Pomologique 86:168-180.
- Moffitt, H. R., P. H. Westigard, and D. O. Hathaway. 1978. Pheromonal control of the codling moth and biological control of the pear psylla. Proceedings of the Oregon Horticultural Society 70:95-96.
- Monti, L. 1958. Psylla (*Psylla pyricola*), lacebug (*Stephanitis piri*), and slug (*Caliroa limacina*) of pears. In Le avversita delle piante agrarie, vol. 1, fasc. 19, 6 p. Goidanich, G., editor. Roma, Ramo Editoriale degli Agricoltori. (IT)
- Mundinger, F. G. 1925. Investigations on the control of pear psylla. New York State Agricultural Experiment Station Research Bulletin 529.
- _____. 1952. Control of pear psylla (*Psylla pyricola*). Journal of Economic Entomology 45:934-939.
- Newcomer, E. J. 1950. Orchard insects of the Pacific Northwest and their control. U.S. Department of Agriculture Circular 270, 63 p.
- Nickel, J. L. 1965. They said it couldn't be done in California. Western Fruit Grower 19:17-20.
- _____, J. T. Shimizu, and T. T. Y. Wong. 1965. Studies on natural control of pear psylla in California. Journal of Economic Entomology 58:970-976.
- Nichols, C., F. L. Blanc, A. A. Millecan, and G. D. Barbe. 1965. A new explanation of the spread of pear psylla and pear decline virus in California. California Department of Agriculture Bulletin 54:133-144.
- Nucifora, A. 1969. La *Psylla piri* (L.) nei frutteti dell' Etan. Tecnica Agricola 21:348-361. (IT:EN Sum)
- Nyland, G., and W. J. Moller. 1973. Control of pear decline with a tetracycline. Plant Disease Reporter 57:634-637.
- Oberhofer, H. 1973. Biologie und Bekämpfung des Birnblattsaugers, Obstbau Weinbau 10:81-83. (GR)
- _____. 1973. Botrytis und Birnblattsauger. Obstbau Weinbau 10:346. (GR)
- _____, and K. Werth. 1974. Ein zweifacher Wendepunkt. Obstbau Weinbau 11:150. (GR)
- Oldfield, G. N. 1970. Diapause and polymorphism in California populations of *Psylla pyricola* (Homoptera:Psyllidae). Annals of the Entomological Society of America 63:180-184.
- O'Neill, W. J. 1949. Pear psylla control with parathion. Journal of Economic Entomology 42:636-639.
- Onillon, J. C., and J. P. Bassino. 1975. Premieres observations et orientations des recherches dans le determinisme des sites preferentiels de ponte du psylle du poirier, *Psylla pyri* L. Proceedings of the Fifth Symposium on Integrated Control in Orchards. Bolzano, 3-7 IX 1974, p. 175-179. (FR)

- Oregon Agricultural Experiment Station. 1973. Pear psylla take big bite. Oregon's Agricultural Progress 19:6-7.
- Ossiannilsson, F. 1952. Synonymy of the Swedish pear psylla. Sweden Statens Vaxtskyddsanst Vaxskydd-snotiser 2:29-30. (SW)
- Overmeer, W. P. J. 1961. Investigations on species of pear sucker in The Netherlands. Tijdschrift over Plant-enziekten 67:281-289. (DU)
- Palm, G. 1975. Birnenblattsauger, *Psylla piri* L., und Moglichkeiten Seiner Bekampfung. Mitteilungen Obstbauversuchsring Jork 30:281-282. (GR)
- Papp, R. P., and J. P. Johnson. 1979. Origins of psyllid fallout in the central Sierra-Nevada of California, U.S.A. Pan-Pacific Entomologist 55:95-98.
- Parrot, P. J. 1916. Some Insects attacking the pear, and their control. New York State Agricultural Experiment Station Research Circular 51, 18 p.
- _____. 1921. Control of sucking insects with dust mixtures. Journal of Economic Entomology 14:206-214.
- Pettit, R. H., and R. Hudson. 1931. Pests of apple and pear in Michigan. Michigan State Agricultural Experiment Station Circular 137.
- Philogene, B. J. R., and J. F. Change. 1978. New records of parasitic chalcoids of pear psylla (Homoptera:Psyllidae) in Ontario, Canada, with observations on the current world status of its parasitoids and predators. Proceedings of the Entomological Society of Ontario 109:53-60.
- Picco, D. 1977. Senze interventi specifici, con la Lotta Complementare: diffinitivamente liberati i nostrimeleti e pereti dai fitofagi acquisiti: Acari Minatori, Ricamatrici e psilla. Informatore Agrario 33:27307-27312. (IT)
- _____, and A. M. Picco. 1978. Nella difesa delle pomacee con la 'lotta complementare' anche la psilla del pero (*Psylla pyri* L.) posta sotto il controllo del suo naturale 'complesso biotico antagonista. Notiziario delle Malattie delle Piante 98/99:101-117.
- Pielou, D. P., and R. S. Downing. 1960. Dimethoate, a systemic of low mammalian toxicity, as an orchard insecticide in British Columbia. Proceedings of the Entomological Society of British Columbia 57:52-57.
- Poddubnyi, A. G., B. V. Vereshchagin, and V. S. Lazarev. 1975. Psyllid pests of pear in Moldavia and their control. In Dendrofil'nye nasekamyje Moldavii, p. 62-71. (RU)
- Quintanilla, R. H. 1955. Los insecticidas modernos en la lucha contra las plagas de la agricultura: combate de "psilido del peral" (*Psylla pyricola*) Corp. Fruiticola Argentina Review Gremial 20:17-18.
- Radjab, G., and N. D. Behechti. 1975. Bio-ecological studies and control of *Psylla pyricola* (Homoptera:Psyllidae) in Esfahan, Iran. Entomologie et Phytopathologie Appliquees 39:39-53.
- Ramsy, A. H., and A. W. McPhee. 1970. Studies on pear psylla in Nova Scotia. Canadian Entomologist 102:586-591.
- Retan, A. H., and J. Fisher. 1978. Pear psylla. Washington State University Extension Service Bulletin 4293, 2 p.
- Ribault, G. 1975. Les psylles du poirier. Phytoma 27:19-23. (FR)
- Riedl, H. W., and S. A. Hoying. 1978. Pear psylla and codling moth control, 1977. Insecticide and Acaricide Tests 3:46.
- _____. 1978. Efficacy of SD-43775 (Pydrin) for codling moth and pear psylla control on pears. Insecticide and Acaricide Tests 3:46-47.
- _____. 1979. Efficacy and side effects of psylla and codling moth control programs on pear, 1978. Insecticide and Acaricide Tests 4:31-32.
- Riviere, G. 1921. Le psylle du poirier dans la region Parisienne. Journal de la Societe Nationale d'Horticulture de France, Paris 22:286.
- Ross, W. A. 1918. The pear psylla. Agricultural Gazette of Canada 5:1134-1136.
- _____. 1924. Miscellaneous notes on the pear psylla problem. Annual Report of the Entomological Society of Ontario 55:80-84.
- _____. 1925. Miscellaneous notes on lubricating oil sprays with special reference to their use for pear psylla control. Annual Report of the Entomological Society of Ontario 56:40-44.
- _____. 1926. The pear psylla and its control. Canadian Department of Agriculture Pamphlet, New Series 66, 8 p.
- _____. 1931. The status of lubricating oil sprays in Ontario. Annual Report of the Entomological Society of Ontario 62:49-57.
- _____, and T. Armstrong. 1943. An experiment with high concentrations of lubricating oil sprays. Scientific Agriculture 23:692-693.
- _____. 1946. Spray schedules for pear orchards specially subject to pear psylla and codling moth. Canadian Department of Agriculture, Entomology Publication 40, 2 p.
- _____, T. Armstrong, and D. F. Patterson. 1933. Notes on pear psylla and San Jose scale control. Annual Report of the Entomological Society of Ontario 63:21-29.
- _____, and W. Robinson. 1920. Further notes on the control of pear psylla. 50th Annual Report of the Entomological Society of Ontario, p. 33-38.
- Sala, R. 1952. La Mielea del peral. El Cultivador Moderno 35:218-219.
- Schaeffer, H. A. 1948. Zum saisondimorphismus von *Psylla pyricola* Foerster. Schweizerische Entomologische Gesellschaft Mitteilungen 21:480. (SW)
- _____. 1949. Beiträge zur kenntnis der Psylliden der Schweiz. Schweizerische Entomologische Gesellschaft Mitteilungen 22:1-96. (SW)

- Scheurer, R., M. A. Ruzette, and V. Fluck. 1975. Effects of treatment with an insect growth regulator on the pear psylla, *Psylla piri* L., under field conditions. *Zeitschrift fur Angewandte Entomologie* 78:313-16.
- Servadei, A. 1947. Lotta contro la psilla del pero. *Giornale di Agricoltura* 57:257. (IT)
- Shalamberidze, N. N. 1973. Sun rays and the development of pear psylla eggs. *Zashchita Pastenii* 3:48. (RU)
- Shalla, T. A., T. W. Carroll, and L. Chiarappa. 1964. Transmission of pear decline by grafting. *California Agriculture* 18:4-5.
- _____, L. Chiarappa, and T. W. Carroll. 1963. A graft transmissible factor associated with pear decline. *Phytopathology* 53:366-367.
- _____, and C. W. Nicols. 1961. Pear decline—1961. *California Department of Agriculture Bulletin* 50:217-220.
- Siddiqi, Z. A. 1949. Occurrence of *Psylla pyricola* Foerst. on apple and pear trees in Kamaum. *Indian Journal of Entomology* 8:237.
- Simpson, C. M. 1963. Pear psylla, *Psylla pyricola* Foerst. and pear rust mite, *Epitrimerus pyri* (Nal.). Pesticide Research Report, National Committee on Pesticide Use in Agriculture (Canada) 1963. p. 36-38.
- Singleton-Smith, J., J. F. Chang, and B. J. R. Philogene. 1978. Morphological differences between nymphal instars and descriptions of the antennal sensory structures of the nymphs and adults of *Psylla pyricola* (Homoptera:Psyllidae). *Canadian Journal of Zoology* 56:1576-1584. (EN:FR)
- Slingerland, M. V. 1892. The pear-tree psylla. *Cornell University Agricultural Experiment Station Bulletin* 44:161-186.
- Smeding, P. 1949. Pear psylla. *Directeur vande Tuinbow Mededelingen* 12:138-139. (DU)
- Smith, E. H. 1965. The susceptibility of life history stages of pear psylla to oil treatments. *Journal of Economic Entomology* 58:456-464.
- Smith, L. G. 1941. Pear psylla in Washington. *Washington State College Extension Bulletin* 255, revised, 4 p.
- Smol'yannikov, V. V. 1978. Sucking pests of fruit trees. *Zashchita Rastenii* 4:53-54. (RU)
- Sobetskii, L. A., and A. B. Verschchagina. 1973. One problem of the physiological role of invertase in sucking insects. *In Fauna Biologiia Nasekomykh Moldavii* 1973, p. 103-106. (RU)
- Soenen, A. 1966. The enemies of our crops; the Psyllidae. *Fruit Belge* 34:413-416. (FR)
- Solomon, M. G., J. E. Cranham, and M. A. Esterbrook. 1977. Pears. Pear sucker, *Psylla pyricola* Foers. Report of the East Malling Research Station 1976, p. 113-115.
- Solva, J. 1972. Spritzversuch gegen Birnblattsauger. *Obstbau Weinbau* 9:358-359.
- Swirski, E. 1953. The bionomics of the pear psylla *Psylla pyricola* Foerster in Israel. *Ktavim* 4:61-68.
- _____. 1962. Cycle d'un Psylle du Poirier, *Psylla pyri* L., dans le Midi de la France. *Bulletin de la Societe d'Histoire Naturelle, Toulouse* 97:230-240. (FR)
- _____. 1963. Note preliminaire sur quelques Psyllides du Sud-Ouest de la France. *Revue de Pathologie Vegetale et d'Entomologie Agricole de France* 92:168-176. (FR)
- _____. 1964. Observations preliminaires concernant l'elimination de la diapause chez *Psylla pyri* L. *Revue de Pathologie Vegetale et d'Entomologie Agricole de France* 93:3-12. (FR)
- _____. 1967. Observations sur l'elimination de la diapause de *P. pyri* dans les conditions naturelles. *Annales, Societe Entomologique de France (N.S.)* 3:151-164. (FR)
- _____. 1967. Influence des facteurs externes sur "l'Elimination anticipee" de la diapause de *P. pyri* dans les conditions naturelles. *Comptes Rendus, Academie des Sciences, Paris* 264:1445-1448. (FR)
- _____. 1967. Cycle biologique de *Psyllopsis fraxini* Foerster dans le sud-Ouest de la France. Communication faite au Congres de l'AFAS, Bordeaux, Juillet 1967.
- _____. 1968. Role de la temperature dans l'evolution et l'elimination de la diapause larvaire de *Psylla buxi*. *Annales, Societe Entomologique de France (N.S.)* 4:69-74. (FR)
- Thanh-Xuan, Nguyen. 1968. Recherches sur la biologie des Psyllids: Etude comparee de la biologie de *Psyllopsis fraxini* Foerster, de *Psylla buxi* L. et de *Psylla pyri* L. (Homopteres:Psyllidae) dans le Midi de la France. These de Doctorat es-Sciences Naturelles, 25 Juin 1968. (FR)
- _____. 1969. Mise en evidence d'un dimorphisme sexuel chez les larves des Psylles (Homoptera:Psyllidae). *Bulletin, Societe Entomologique de France* 74:110-116. (FR)
- _____. 1969. Etude de la resistance au froid et de la "capacite d'acclimation" de *Psylla buxi* L. (Homoptera:Psyllidae). *Comptes Rendus, Academie des Sciences, Paris* 268:1410-1413. (FR)
- _____. 1970. Influence de la temperature et de la photoperiode sur la reproduction d'un psylle du poirier, *Psylla pyri* L. (Homoptera:Psyllidae). *Comptes Rendus, Academie des Sciences, Paris* 270:2336-2338. (FR)
- _____. 1970. Recherches sur la Morphologie et la Biologie de *Psyllopsis fraxini* L. (Homoptera:Psyllidae). *Annales, Societe Entomologique de France (N.S.)* 6:757-773. (FR)
- _____. 1970. Influence de la nature des aliments sur la longevite et la reproduction d'insecte phytophage *P. pyri*. Commission de Nutrition chez les Poecilothermes (CNRS Research), 1970. (FR)
- _____. 1971. Effet du groupement sur la reproduction et la longevite de *P. pyri*. *Comptes Rendus, Academie des Sciences, Paris* 272:1782-1784. (FR:EN Sum)

- _____. 1972. Influence de la nature des plantes hotes sur la longevite et la fecondite de *Psylla pyri* L. (Homoptera:Psyllidae). Comptes Rendus, Academie des Sciences, Paris 274:546-548. (FR:EN Sum)
- _____. 1972. Etudes de la diapause imaginale de *P. pyri* L. Determination du polymorphisme saisonnier des adultes. Annales de Zoologie Ecologie Animale 4:281-309 (FR:EN Sum)
- _____. 1972. Consequences des piqures nutritives de certains Psylles eleves sur leur plante hote principale. Commission de Nutrition chez les Poecilohermes (CNRS Research), Decembre 1972. (FR)
- _____. 1973. Action du surpeuplement sur la reproduction de *Psylla pyri* L. (Homoptera:Psyllidae). Comptes Rendus, Academie des Sciences, Paris 276:2389-2390. (FR)
- _____. 1974. Les effets des facteurs externes sur la reproduction de *P. pyri*. Annales de Zoologie Ecologie Animale 6:186-188. (FR:EN Sum)
- _____. 1974. Evolution et elimination de la diapause ovarienne de *Psylla pyri* (Homoptera:Psyllidae) dans les conditions naturelles de la region Toulousaine. Communication aux Journees de la Societe Zoologie de France, 3-6 Juillet 1974 a OLEANS. (FR)
- _____. 1975. Development and termination of the ovarian diapause of *Psylla pyri* (Homoptera:Psyllidae). Bulletin Societe Zoologie de France 100:241-246.
- _____, and A. Ledoux. 1973. Evolution de la diapause ovarienne des femelles hivernantes de *Psylla pyri* L. (Homoptera:Psyllidae) pendant la periode automne-hiver. Comptes Rendus, Academie des Sciences, Paris 276:2385-2387. (FR)
- _____, and Mandjoba. 1976. Choix des plantes hotes chez *Psylla melanomeura* (Homoptera:Psyllidae). Influence nutritionnelle sur la biologie. Communication a la Commission de Nutrition chez les Poecilohermes (CNRS Research), Mars 1976. (FR)
- _____, and J. Messi. 1972. Influence nutritionnelle apportee par des Genets *Sarothamnus scoparius* d'origine differente sur la ponte d'un Psylle, *Arytaina genistae*. Communication a la Commission de Nutrition chez les Poecilohermes (CNRS Research, Decembre 1972. (FR)
- _____. 1973. Observations sur la ponte des femelles de *Arytaina genistae* elevee sur des Genets d'origine differente. Comptes Rendus, Academie des Sciences, Paris 276:1691-1694. (FR)
- _____, and M. Mirkarimi. 1975. Relation entre l'un des parasites entomophages des psylles *Prionomitus mitratus* (Hymenoptera:Encyrtidae) et ses hotes principaux. Communication a la Commission de Nutrition chez les Poecilohermes (CNRS Research), Mars 1975. (FR)
- Thygesen, T., P. Esbjerg, and H. Eiberg. 1973. Ildsotoverfoering med insekter. Tidsskrift for Planteavl 77:324-336. (DA:EN Sum)
- Toth, L. 1977. A Korte Rovarkartevoi ellen alkalmazott vedekezési technologiák hatása a közönséges kórtelvelbolha felszaporodására (*Psylla pyri*). Novenyvedelem 13:372-373. (HU)
- Trammel, K. 1974. Where we stand on pear psylla control. Proceedings of the New York State Horticultural Society 119:133-142.
- Trentini, R. 1958. Pear psyllids. Terra Trentina 1958:49-52. (IT)
- U.S. Department of Agriculture. 1976. Pear psylla, *Psylla pyricola*, in Colorado. U.S. Department of Agriculture Cooperative Plant Pest Report 1:135.
- Vermeulen, J., J. Gajate, and M. C. Vermeulen. 1977. Efectividad de algunos insecticidas en el control del psilido del peral (*Psylla pyricola*). Investigaciones Agropecuarias 7:15-18. (SP:EN Sum)
- Vernon, J. D. R., and H. J. Gould. 1972. Further trials on alternatives to DDT for the control of preblossom pests on apple and pear. Plant Pathology 21:1-9.
- Vigil, J., and S. Demattio. 1977. Winter-oder austriebsspritzung gegen Birnblattsauger. Obstbau Weinbau 14:362. (GR)
- _____, S. Orsi, and S. Demattio. 1979. Spritzversuch gegen Birnblattsauger in Jahre, 1978. Obstbau Weinbau 16:74. (GR)
- Vrabl, S., and G. Matis. 1977. Prolong poznavanju biologije i mogucnosti szubijanja kruskinih buva (Homoptera:Psyllidae). Sloveniji Zastita Bilja 28:41-52. (CR:EN Sum)
- Watson, T. K., and W. H. A. Wilde. 1963. Laboratory and field observations on two predators of the pear psylla in British Columbia. Canadian Entomologist 95:435.
- Webster, R. L. 1924. Fumigation with hydrogen cyanide for control of pear psylla. New York State Agricultural Experiment Station Bulletin 523.
- _____. 1939. Pear psylla survey. Proceedings of the Washington State Horticultural Association 35:36-40.
- Weighton, D. M., J. C. Kerry, J. F. McCarthy, and G. N. Price. 1974. Amitraz—a novel acaricide with selective insecticidal properties. Proceedings of Seventh British Insecticide and Fungicide Conference, Brighton, England, vols. 1, 2, and 3. British Crop Protection Council XVIII:1-372, 373-754; XII:755-1089. (FR:EN)
- Werth, K. 1974. Zum problem Birnblattsauger. Obstbau Weinbau 11:17-18.
- Westigard, P. H. 1973. Pest status of insects and mites on pear in southern Oregon. Journal of Economic Entomology 66:227-232.
- _____. 1973. The biology of and effect of pesticides on *Deraeocoris brevis-piceatus* (Heteroptera:Miridae). Canadian Entomologist 105:1105-1111.
- _____. 1974. Control of the pear psylla with insect growth regulators and preliminary effects on some nontarget species. Environmental Entomology 3:256-258.

- _____. 1979. Codling moth control on pears with diflubenzuron and effects on nontarget pests and beneficial species. *Journal of Economic Entomology* 72:552-554.
- _____, and D. W. Berry. 1975. Pear psylla control in southern Oregon. *Proceedings of the Oregon Horticultural Society* 66:130-132, 135-136.
- _____, L. G. Gentner, and D. W. Berry. 1968. Present status of biological control of the pear psylla in southern Oregon. *Journal of Economic Entomology* 61:740-743.
- _____, and H. F. Madsen. 1963. Pear psylla in abandoned orchards. *California Agriculture* 17:6-9.
- _____, M. N. Westwood, and P. B. Lombard. 1970. Host preference and resistance of *Pyrus* species to the pear psylla *Psylla pyricola* Foerster. *Journal of the American Society for Horticultural Science* 95:34-36.
- _____, and R. W. Zwick. 1972. The pear psylla in Oregon. Oregon State Agricultural Experiment Station Technical Bulletin 122, 22 p.
- _____. 1979. Pear psylla control: current status and future potentials. *Proceedings of the Oregon Horticultural Society* 70:90-94.
- Westwood, M. N. 1976. Inheritance of pear decline, a mycoplasma disease transmitted by *Psylla pyricola*. *Fruit Varieties Journal* 30:63-64.
- _____, and H. R. Cameron. 1978. Environment-induced remission of pear decline symptoms. *Plant Disease Reporter* 62:176-179.
- _____, H. R. Cameron, P. B. Lombard, and C. B. Cordy. 1971. Effects of trunk and rootstock on decline, growth, and performance of pear. *Journal of the American Society of Horticultural Science* 96:147-150.
- _____, and P. B. Lombard. 1966. Pear rootstocks. *Proceedings of the Oregon Horticultural Society* 58:61-68.
- Wilde, W. H. A. 1962. A note on color preferences of some Homoptera and Thysanoptera in British Columbia. *Canadian Entomologist* 94:107.
- _____. 1962. Bionomics of the pear psylla, *Psylla pyricola* Foerster, in pear orchards of the Kootenay Valley of British Columbia. *Canadian Entomologist* 94:845-849.
- _____. 1962. The pear psylla in British Columbia. Canadian Department of Agriculture Mimeo, 12 p.
- _____. 1963. Downy chess grass as a host of the pear psylla. *Canadian Entomologist* 95:1005-1006.
- _____. 1963. Hyperpredators of the pear psylla, *Psylla pyricola* Foerster [Homoptera:Chermidae (sic)]. *Proceedings of the Entomological Society of British Columbia* 60:48-49.
- _____. 1963. Pear psylla. A growing menace to orchardists. *Research for Farmers* 8:3.
- Wilde, W. H. A. 1965. The pear psylla, *Psylla pyricola* Foerster, in Ontario [Homoptera:Chermidae (sic)]. *Proceedings of the Entomological Society of Ontario* 95:5-10.
- _____. 1966. Climbing night-shade as a host of pear psylla. *Canadian Entomologist* 98:558-559.
- _____. 1970. Common plantain as a host of pear psylla (Homoptera:Psyllidae). *Canadian Entomologist* 102:384.
- _____, J. Carpenter, J. Liberty, and J. Tunnicliffe. 1971. *Psylla pyricola* (Homoptera:Psyllidae) vector relationships with *Erwinia amulovora*. *Canadian Entomologist* 103:1175-1178.
- _____, and D. L. McIntosh. 1964. *Psylla pyricola* Foerster suppresses pear tree root development. *Canadian Entomologist* 96:1083.
- _____, and T. K. Watson. 1963. Bionomics of the pear psylla, *Psylla pyricola* Foerster, in the Okanagan Valley of British Columbia. *Canadian Journal of Zoology* 41:953-961.
- Williams, H. E., G. H. Kaloostian, and S. H. Smith. 1971. Transmission of a pear virus to cucumber by *Psylla pyricola*. *Plant Disease Reporter* 55:295-297.
- Williams, M. W., L. P. Batjer, E. S. Degman, and E. C. Burts. 1963. Susceptibility of some pear species to injury from pear psylla. *Proceedings of the American Society for Horticultural Science* 82:109-113.
- _____, and R. C. Lindner. 1965. Biochemical components of pear psylla and their relative toxicity to excised bean plants. *Journal of Insect Physiology* 11:41-52.
- Wojnarowska, P., I. Baranowna, and I. Lipowa. 1960. *Psylla piri* (sic) L.—a pest of pears. *Posen Instytut Ochrony Roslin Prace Naukowe* 2:143-161. (PO)
- Wong, T. T. Y., and H. F. Madsen. 1967. Laboratory and field studies on the seasonal forms of pear psylla in northern California. *Journal of Economic Entomology* 60:163-168.
- Xuan, Nguyen Thanh—See Thanh-Xuan, Nguyen.
- Zgardinska, A. 1976. Koliszki (Homoptera:Psyllidae) Okolic Siedlce. *Polski Pismo Entomologiczne* 46:241-246. (PO:EN Sum)
- Zwick, R. W. 1975. Pear *Psylla pyricola* control. *Proceedings of the Oregon Horticultural Society* 66:129-130.
- _____, and G. J. Fields. 1977. Integrated control of pear psylla in Oregon's Hood River Valley. Oregon State Agricultural Experiment Station Circular 660, 8 p.
- _____. 1978. Field and laboratory evaluations of fenvalerate against several insect and mite pests of apple and pear in Oregon. *Journal of Economic Entomology* 71:793-796.
- _____, and F. W. Peifer. 1968. Oils for summer control of pear psylla and their effects on pear trees. *Journal of Economic Entomology* 61:1075-1079.

Zwick, R. W., and P. H. Westigard. 1978. Prebloom petroleum oil applications for delaying pear psylla (Homoptera:Psyllidae) oviposition. Canadian Entomology 110:225-236.

**U.S. DEPARTMENT OF AGRICULTURE
SCIENCE AND EDUCATION ADMINISTRATION
WASHINGTON, D.C. 20250**

**OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300**

**POSTAGE AND FEES PAID
U. S. DEPARTMENT OF
AGRICULTURE
AGR 101**

